4				Form approved	
Form 3160-5	UNITED	STATES	SUBMIT IN TRIPLIC	CATE®	No. 1004-0135
November 1983)	DEPARTMENT OF	THE INTER	RIOR (Other Instructions	5. LEASE DESIGNATION	
Formerly 9-331)	BUREAU OF LAN			Jicarilla	Cont 435
				6. IF INDIAN, ALLOTT	
SUN	DRY NOTICES AN	D REPORTS	ON WELLS	1	
(Do not use this			hack to a different reservoir.	7: 21:23	
	Use "APPLICATION FOR P	ERMIT - for such	proposats./	Jicarilla 7. UNIT AGRESMENT	Apache Tribe
1.			,	7. UNIT AGRESSERT	AME
WELL X WELL	OTHER				
2. NAME OF OPERATOR			/	S. FARM OR LEASE NA	ME
Mallon	Oil Co. c/o KM Pr	oduction Co	· . / .	Jicarilla	435
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D O Do	r 2406 Farmingto	n NM 9740	9 RECEIVED	G #1	
P.U. BO	eport location clearly and in	accordance with an	r State requirements.*	10. FIELD AND POOL,	OR WILDCAT
See also space 17 belo	eport location clearly and in . w.)	secondance with an	y orace requirements.		
At surface			MAR 26 1987	Undesig. Ga	
				11. SEC., T., B., M., OR SURVEY OR ARE	
1850' F	NL & 1850' FWL	12 1	UREAU OF LAND MANAGEMI	FNT	
			ARMINGTON RESOURCE AR	EA Sec. 9, T22	
4. PERMIT NO.	. 15. ELEVATIO	Show whether	or, RT. GR. etc.)	12. COUNTY OR PARIS	H 13. STATE
		853 RKB		Sandoval	NM
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đ.	Check Appropriate B	ox To Indicate	Nature of Notice, Report	, or Other Data	
	OTICE OF INTENTION TO:			UBENQUENT REPORT OF:	
	OTICE OF INTENTION TO.				
TEST WATER SHUT-OF	PULL OR ALTER	C (SING	WATER SHUT-OFF	BEPAIRING	WELL
FRACTURE TREAT	MULTIPLE COM	PI.ETE	PRACTURE TREATMENT	T ALTERING	CABING
SHOUT OR ACIDIZE	ABANDON*		SHOOTING OR ACIDIZIN		
REPAIR WELL	CHANGE PLANS		(Other) Swab, ru	in tubing, pump, r	ods X
			(Note: Report	results of multiple completion Recompletion Report and Log fo	on Well
(Other)			nt details, and give pertinent		
				RECEIV	A Comment
				MAR 27 1987	
				OIL CON. DI	.
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				DIST. 3	
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3. I hereby cersity that t	her foregoing is grue and cor	rect			
SIGNED W	H. Myou	_ TITLE	Agent	DATE 3-25	-87
(This space for Federa	l or State office use)	The second secon		ACCEPTED	FOR RECORD
APPROVED BY		_ TITLE		BATE	
CONDITIONS OF API	ROVAL, IF ANY:				
				MAR	26 1987



KM PRODUCTION COMPANY P.O. Box 2406 Farmington, NM 87401 (505) 325-6900

DAILY REPORT

Mallon Oil Company Jicarilla 435 G #1 1850' FNL & 1850' FWL Sec. 9, T22N, R4W Sandoval County, New Mexico

- 12-27-86 Spud well at 5:00 p.m. 12/26/86. Drill 12-1/4" hole to 208 ft. Ran 188.51 ft. of 8-5/8", 24#/ft. J-55 casing and set at 201' RKB. Rigged up Dowell and cemented surface casing with 125 sacks (148 ft.3) of Class B cement with 2% CaCl. Good circulation throughout job. Circulated cement to the surface. Plug down at 10:00 p.m. 12/26/86. Waiting on cement.
- 01-02-87 TD well at 4:30 p.m. 1/1/87. Short trip; circulate for 1-1/2 hrs.. TOH and rigged up Welex. Logs stopped at 813 ft. TIH with drillpipe to clean hole (no circulate). TOH for logs. Rigged up Welex logging.
- 01-03-87 Ran IEL, CNL-FDC, and Fracfinder logs. TIH with drillpipe. Lay down drillpipe and collars. Ran 4-1/2" casing as follows:

DESCRIPTION	LENGTH	DEPTH
KB to landing point 104 jts. 4-1/2" 11.3¢/ft. J-55 new casing D.V. tool 36 jts. 4-1/2" 11.6#/ft. J-55 new casing DFFC 1 jt. 4-1/2" shoe joint 1 cement filled guide shoe	15.00 4386.51 2.25 1518.24 2.50 42.50 1.00	0-15 15-4402 4402-4404 4404-5922 5922-5925 5925-5967 5967-5968
	5968.00	

Centralizers @ 5947, 5799, 5673, 5546, 5420, 5293, 5167, 5040, 4913, and 4446.

Rigged up Dowell. Cemented 1st stage with 350 sacks (441 ft.³) of 50/50 pozmix w/2% gel, 10% salt and 1/4# flocele/sack. Good circulation throughout job. Bumped plug to 1800 psi. Plug down @ 2:30 a.m. 1/3/87. Drop bomb to open DV tool and circulate 3 hours. Cemented 2nd stage w/350 sacks (721 ft.³) Class B w/2% D-79 tailed by 325 sacks (410 ft.³) 50/50 pozmix w/2% gel, 10% salt. Good circulation throughout job. Bumped plug to 3000 psi; held okay. Plug down at 7:30 a.m. 1/3/87. Released rig @ 10:00 a.m. 1/3/87. Ran temperature survey. Top of cement @ 700 ft. Wait on completion.

3-02-87 Move in and rig up Bayless Rig 3. Nipple up wellhead and BOP. Pick up 3-7/8" bit, casing scraper, and 2-3/8" tubing. Tagged cement on top of DV tool at 4378' RKB. SDFN.

Rig: 1365 Eng: 100 Daily: \$1465 Cum: \$91,369 3-03-87 to 3-04-87 Shut down doing other work.

3-05-87 Drilled 24 ft. of cement and DV tool at 4402' RKB. Picked up remaining tubing to PBTD of 5934' RKB. Rigged up Western Company. Pressure tested casing and wellhead to 3500 psi; held okay. Circulated hole clean with 1% KCL water. Moved tubing to 5836' and spotted 250 gallons of 7-1/2% DI HCL acid across perforation interval. Tripped tubing out of hole. SDFN.

Rig: 1502 Eng: 500 Daily: \$2002 Cum: \$93,371
3-06-87 Rigged up Blue Jet. Ran GR-CLL from PBTD of 5910 to 4300 ft.
Perforated lower Gallup interval with 3-1/8" casing gun and 4 JSPF as follows:

5824-5836 ft. 12' 48 holes (.34" diameter)

Rigged up Western Company. Broke down perforations; immediately established an injection rate of 19.5 BPM @ 2600 psi. ISIP=1800 psi. Acidized the lower Gallup with 250 gallons of 7-1/2% DI weighted HCL acid containing 72 1.1 s.g. RCN ball sealers, 19 BPM @ 2600 psi. Saw some ball action. Balled off casing to 3500 psi. Ran junk basket to recover ball sealers. Recovered 72 ball sealers. Fracture stimulated lower Gallup with 14,033 gallons of 20#/1000 gal. crosslinked gelled water containing 19,600 lbs. of 20/40 sand as follows:

5000 gal. pad 30 BPM @ 3200 psi 2500 gal. 1 ppg 20/40 sand 32 BPM @ 3200 psi 2500 gal. 2 ppg 20/40 sand 35 BPM @ 3200 psi 4033 gal. 3 ppg 20/40 sand 35 BPM @ 3200-3500 psi*

Well screened out at this point, total sand in formation is 9600 lbs., total sand in casing 10,000 lbs. (1070 ft. of sand, top of sand at approximately 4865 ft.). All fluid contained 1% KCL water, 1/2 gal./1000 clay stabilizer and 1 gal./1000 surfactant. ISIP=3500 psi, 5 min.=1400 psi, 10 min.=1300 psi, 15 min.=100 psi. Average rate 32 BPM, average pressure 3200 psi, maximum pressure 3500 psi, minimum pressure 3200 psi. Total load fluid to recover is 336 bbls. Shut in well overnight to allow fracture to heal and gel to break. SDFN.

Rig: 1365 Eng: 500 Fracture: 6012 Wireline: 856 Daily: \$8733 Cum: \$102,104
3-07-87 Overnight shutin pressure was 150 psi. Well flowed for 35 minutes.
Tripped in hole with sawtooth collar on tubing. Tagged sand fill
at 3978 ft. RKB. Circulated 910 ft. of sand bridge and fell through
at 4788' RKB. Tripped tubing in hole and tagged sand fill at 5821' RKB.
Circulated 113 ft. of sand fill to PBTD of 5934 ft. (total sand circulated
from hole is 1023 ft., or 9550 lbs.). Tripped tubing out of hole. SDFN.

Rig: 1502 Eng: 100 Daily: \$1602 Cum: \$103,706

3-09-87 Rigged up Blue Jet. Set retrievable bridge plug on wireline at 5750' RKB. Pressure tested plug to 3500 psi; held okay. Tripped in hole with tubing to 5372' RKB. Dropped 5 gallons of sand on top of bridge plug. Spotted 750 gal. of 7-1/2% DI HCL acid across perforation interval. Tripped tubing out of hole. Perforated upper Gallup interval with 3-1/8" select fire casing gun as follows:

4684	4799	4885	4958	5016	5106	5162	5232	5264	5331	5345
4735	4811	4913	4973	5029	5124	5167	5234	5285	5333	5350
4752	4836	4928	4989	5031	5141	5175	5242	5290	5335	5352
4765	4847	4943	4998	5033	5143	5205	5260	5307	5337	5364
4775	4875	4950	5011	5099	5145	5209	5262	5323	5339	5372

Total 55 perforations (.34" diameter)

Broke down perforations at 1500 psi. Established injection rate into perforations down casing of 49 BPM @ 2500 psi, ISIP=500 psi. Acidized upper Gallup interval with 750 gallons of 7-1/2% DI HCL weighted acid containing 83 l.l s.g. RCN ball sealers - 34 BPM @ 2200 psi. Saw good pressure breaks due to ball sealers. Did not balloff. Final injection rate of 16 BPM @ 3200 psi, ISIP=800 psi. Ran junk basket to retrieve ball sealers - recovered 75 balls. Fracture stimulated upper Gallup interval with 97,000 gallons of 20#/1000 gal. crosslinked gelled water containing 141,000# of 20/40 sand and 75 MC of RA sand as follows:

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20,000 gal. pad 60 BPM @ 2700 psi
25,000 gal. 1 ppg 20/40 sand 60 BPM @ 2600-2550 psi
40,000 gal. 2 ppg 20/40 sand 60 BPM @ 2600-2650 psi *
12,000 gal. 3 ppg 20/40 sand 60 BPM @ 2600-2800 psi**
3,071 gal. flush 57 BPM @ 2600 psi
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ISIP = 500 psi; 5 min. = 400 psi; 10 min. = 400 psi; 15 min. = 390 psi.

All water contained 1% KCL, 1/2 gal./1000 clay stabilizer, and 1 gal./1000 surfactant. Average rate 60 BPM; average pressure 2600 psi; maximum pressure 3100 psi; minimum pressure 1600 psi. Total load fluid to recover is 2505 bbls. Shut well in overnight to allow fracture to heal and gel to break. SDFN.

Rig: 1365 Eng: 500 Frac: \$15,965 Wireline: 1711 RA Sand: 1169 Daily: \$20,710 Cum: \$124,416

- * Well had 1000 psi pressure drop (2600 psi to 1600 psi) starting at 6 minutes into 2 ppg stage and lasting for 2 minutes, then returned to 2600 psi treating pressure.
- ** Stopped 3 ppg stage short by 3000 gallons ran short of water in one tank sucking air.

3-10-87 Csg. Pressure = 150 psi. Tag sand at 5675. clean out 75 ft. of sand w/ Western Nitrogen to WLBP @ 5750 ft. Circulate clean. Latch onto BP, unset. Drag coming out of hole for 40 stands. Lost bottom cone assembly of BP. TIH w/ sawtooth collar, 1 jt. tbg, secting nipple, and remaining tubing. Tag junk in hole at 3930'. Knock junk loose. Tag sand fill at 5928 (6 ft. of fill). Pick up tubing to swab @ 4788 ft. Shut well.

Rig 1638 Eng 250 Daily 3859 Cumm. \$128,275

Nitrogen 1971

3-11-87 Overnight shutin pressures: annules 200 psi, tubing 50 psi. Well flowed 42.1 bbls in 6 hrs making from 20% oil cut ot trace of oil - see swab report. Made 11 swab runs on the day - recovered 130.3 more Bbls of fluid (172.4 Bbls total on day) - Well was making from trace of oil to 1% oil cut with slight gas blow after run - fluid entry rate at end of day was 34.9 Bbl/m (837/6 Bbl/day). Shut well in - SDRN

Rig 1570 Daily \$1670 Eng 100 Cumm \$129,945

3-12-87 Overnight shutin pressures: annules 150 psi, tubing 20 psi, well flowed for 1 hour, making 2.2 Bbl. of 90% oil cut fluid - Rigged to swab - made 26 swab runs on the day (see swab report) - Recovered 226.8 Bbls. of fluid swabbinh (229.0 total for day, 401.4 total since frac) - swab fluid increased from 1% to 5% oil cut at end of day - well was making 25.5 Bbl/hr fluid entry at end of day (610.8 Bbl/day) - well was blowing small amount of gas after each run - shut well in - SDFN.

Rig 1570 Daily \$1670 Eng 100 Cum \$131,615

3-13-87 Overnight shutin pressures: annules 240 psi, tubing 225 psi - well flowed for 45 minutes, making 3.4 Bbls of 95% oil cut fluid - Rigged to swab - Made 24 swab runs on the day (see swab report) - Recovered 136.9 Bbls of fluid swabbing (140.3 total for day), 541.7 total since frac) - Swab fluid increased from 5% to 10% oil cut at end of day - well was making 14.1 Bbl/m fluid entry at end of day (338.4 Bbl/day) - well was blowing gas at end of each run - shut in well over weekend to build pressure - SDFM

Rig 1502 Daily \$1602 Cum \$133,217

3-14-87 Shut down for weekend

3-15-87 Shut down for weekend

3-16-87 Overnight shutin pressures: annules 560 psi, tubing 10 psi - tubing blew right down - Rigged to swab - Made 22 swab runs on the day (see swab report) - Recovered 143.9 Bbls of fluid swabbing (143.9 total for day, 685.6 total since frac) - Swab fluid increased from 1% to 40% oil cut at end of day - Well was making 11.2 Bbl/hr fluid entry at end of day (278.8 Bbl/day) - Well was blowing gas at end of each run - Shut in well to build pressure - SDRN

Rig	1502	Daily	\$1602
Eng	100	Cumm	\$134,819

3-17-87 Overnight shutin pressures: tubing 300 psi, annulus 560 psi - tubing and annulus blew right down - tripped rubing out of hole - Rigged up Blue Jet - Ran GR track log from 5806 ft RKB (128 of sand fill, lower Gallup Zone is covered) to 4300 ft RKB - The following preforations were not treated or questionable:

Not Treated		Questionable		
4735	4973	4799	5145	
4811	4989	4928	5162	
4836	5372	4950	5307	
4847		5141		
4875		5143		

Tripped in hole with tubing - tagged sand fill at 5806' RXB - rigged up the Western Company Nitrogen - cleaned out 128 feet of sand fill with foam to PBTD of 5934 - Trip rubing out of hole - trip in hole with pumping assembly - Tag fill at 5896 (sand fill increased 38 ft. while tripping) - landed tubing in BOP - Prep to swab - SDFN

Rig 1775 Eng 500 Wireline 504 Nitrogen 2211 Daily \$4990 Cum \$139,809

3-18-87 Overnight shutin pressures: tubing 60 psi, annulus 280 psi - tubing pressure blew down immediately - Rigged to swab: (see swab report) - made 13 swab runs on the day (had rig mechanical problems - Recovered 85.8 Bbls on the day - (85.8 total for day, 771.4 total recovered since frac) - swab fluid increased from 2% to 25% oil cut at end of day - Well was making 11.1 Bbl/hr fluid entry at end of day (267/2 Bbl/day) - well was blowing gas after each run - ragged sand fill at 5866' (sand fill increased 12 feet) - shut well in - SDRN

Rig 956 Eng 100 Daily \$1056 Cum \$140,865

3-19-87 Overnight shutin pressures: tubing 100 psi, annulus 420 psi - blew tubing and annulus down - Tripped pumping assembly out of hole - Tripped in hole with hudrostatic bailer on tubing - cleaned out 68 ft of sand fill with hydrostatic baiter to PBTD of 5934' RKB - tripped tubing and bailer out of hole - tripped in hole with pumping assembly - landed tubing as follows:

DESCRIPTION	LENGTH	DEPTH
KB to landing point 150 jts 2 3/8" 4.7#ft N-80 EUE used tubing 1 tubing anchor 43 jts 2 3/8" 4.7#/ft N-80 EUE used tubing 1 seating nipple 1 perforated sub 1 jt 2 3/8" mud anchor 1 bullplug	12.00 4536.76 3.20 1308.51 1.10 6.20 28.80	0-12 12-4548 4548-4551 4551-5859 5859-5861 5861-5867 5867-5895
i bulipiug	5896.07	3073 3070

Nipple down BOP - nipple up wellhead - SDFN

Rig 1638 Eng 100 Daily 1738 Cum \$142,603

3-20-87 Overnight shutin pressures: tubing 75 psi, annulus 225 psi - Landed pump and rods as follows:

DESCRIPTION	LENGTH	DEPTH
KB to landing point	8.00	0-8
11 x 22; polished rod with		
$1\frac{1}{2}$ "x12' liner (x'out)	22.00	8-24
Rod stretch	19.00	24-43
2-3/4" pony rods	16.00	43-59
139 3/4" new scraper rods	3475.00	59-3534
93 2/3" new plain rods	2325.00	3534-5859
2"x1\frac{1}{2}"x12'13x16 RHAC top-		
head down pump	16.00	5859-5875

Hung off rods - Released Rig

Rig 1229 Eng 200 Daily \$1429 Cum \$144,032